VZCZCXRO4869
RR RUEHDE RUEHDH RUEHDIR
DE RUEHRH #1393/01 2931543
ZNY CCCCC ZZH
R 201543Z OCT 09
FM AMEMBASSY RIYADH
TO RUEHC/SECSTATE WASHDC 1735
INFO RUEHZM/GULF COOPERATION COUNCIL COLLECTIVE
RUEHFR/AMEMBASSY PARIS 0818
RHEBAAA/DEPT OF ENERGY WASHINGTON DC
RUCPDOC/DEPT OF COMMERCE WASHDC

C O N F I D E N T I A L SECTION 01 OF 02 RIYADH 001393

SIPDIS

E.O. 12958: DECL: 10/15/2019
TAGS: ENRG ECON EINV PREL MNUC SA
SUBJECT: RAPID ELECTRICITY DEMAND PUSHING SAUDI TO CONSIDER NUCLEAR?

REF: RIYADH 1203

Classified By: Ambassador James B. Smith, Reasons 1.4 (b and d).

¶1. (C) Summary: The pace of growth in electricity demand, at 10% per year, is putting significant strain on the Saudi Government's ability to meet demand. Industry reports that, for the first time, brownouts affected the oil loading facilities at Jubail this summer. The Saudi Electricity Company forecasts it will have to double its electricity generation capacity over the next decade. The Saudi Government is taking several steps to moderate demand, including introducing differentiated prices to encourage industry to use off-peak power. Saudi authorities also expect the recently-completed phases of the GCC electricity grid to increase their ability to handle demand spikes in summer. The grid will eventually make commercially feasible the construction of a few large electricity plants to meet the needs of several GCC countries. Industry sources report that France is close to signing a nuclear cooperation agreement with Saudi Arabia, as well as with the UAE, that will allow it to seal up the GCC market. End Summary.

Doubling of Demand:
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¶2. (U) The Saudi Electricity Company (SEC) forecasts that demand will continue to grow 10% per year over the next decade as a result of population and economic growth, as well as the expansion of the country's distribution grid. As a result, SEC forecasts that the country will need to double its generation capacity from the current 34,000 MW to 68,000 MW in 2018.

Aggravated by Low Prices:
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¶3. (C) Saudi Arabia faces several challenges in reaching this ambitious goal. Saudi Arabia continues to sell electricity at a highly subsidized rate, which encourages significant waste and hampers investments in more efficient technologies. The SAG has been loathe to raise rates for fear of angering the population, which has come to expect cheap electricity. As a result, Saudi Arabia has been increasingly hard-pressed to meet demand, particularly in the summer, when peak demand is double winter levels. Dr. Fareed Zedan, the Governor of the Electricity and Co-Generation Regulatory Authority, explained to Econcouns that the SAG is taking several steps to moderate demand. The Council of Ministers recently authorized ECRA to institute price differentials for industrial, commercial, and government users that will encourage use at off-peak hours. However, as industrial / commercial users only constitute 30 percent of total consumption, raising prices for this group is likely to result in inflationary pressure on conumer prices. Zedan said that concern about popular reaction prevented them from applying the same prices to residential users.

¶4. (C) Zedan complained that Saudis have become accustomed to being profligate users of both electricity and water, and that it will be very hard to break these habits. As an example of how much electricity Saudis waste, Zedan complained his son sleeps with three blankets because he air conditions his room so much. Zedan estimated that the pricing measure will encourage Saudis to cut back on some of these wasteful practices, and allow SEC to reduce its peak load by approximately 10% per year, or close to 4,000 MW. Saudi Arabia is also concerned with maintaining a reliable supply of electricity. Brownouts have plagued the Kingdom in recent years. Foreign investors report that, for the first time, brownouts affected the industrial and oil facilities at Jubail this summer, requiring companies to use backup generators.

GCC Grid to Help:
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¶5. (C) One measure that the SAG has put in place is the linking of the GCC electricity grid. Parts of Phase II (the south) were set up this spring, linking parts of Saudi Arabia with Oman and the UAE. The bulk of Phase I (the north) came into operation in July, linking Kuwait, Bahrain, Qatar, and Saudi Arabia. Zedan explained that this will help reduce the reserve generation capacity that each country must maintain from 25% to 10% of peak load capacity. This, in turn, will allow them to rationalize individual country investment plans, particularly in Kuwait and Saudi Arabia. Zedan noted that Saudi efforts to build new plants have been slowed by the difficulty in getting parts and construction materials

from major suppliers, which have been occupied building new electricity generation capacity in China. This has effectively doubled the time it takes Saudi to build new generation plants. Press reports also note that rising costs for these investments have complicated SEC's finances, prompting the Saudi Government recently to extend the grace period during which it will not receive any dividends from the parastatal company.

Looking for FDI:
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¶6. (C) Saudi Arabia wants to attract foreign investment to meet rising demand. The government is trying to adapt an investment model from the oil sector under which the Saudi Government commits to provide fuel for the plants, removing the price risk for companies. They also offer a guaranteed power purchase agreement for a set amount of power. The problem, Zedan explained, is that the government cannot afford to offer power purchase guarantees at peak load levels. They are working now to negotiate a formula that companies may find acceptable.

Diversifying Fuel Sources:
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¶7. (C) Saudi Arabia is also looking to diversify the sources of fuel for its power plants. Assistant Minister for Petroleum Affairs Abdulaziz bin Salman explained the cost of subsidizing cheap electricity, noting that Aramco sells oil to SEC and the water utility (SWCC) at $4.50 per barrel that it would normally be selling on international markets for more than $60 per barrel. Industry sources estimate that, over the next ten to fifteen years, domestic energy demand could consume up to 4 million barrels a day of Saudi crude and liquids, significantly reducing the amount available for export. Abdulaziz bin Salman expects that the declaration by G20 ministers to end fuel subsidies by 2010 will help provide the Petroleum Ministry the ammunition it needs to begin addressing this issue.

¶8. (C) Zedan made it clear that Saudi Arabia very much wants

to increase its reliance on renewable energy. The problem, however, is finding a way to make it commercially viable. ECRA is working to derive a formula based on a "shadow price" of oil based on the amount of oil saved compared to current plants. Zedan thought that this would allow a high enough return to attract investors, while also demonstrating Saudi Arabia's commitment to support renewable energy. He hoped for Council of Ministers' approval of a formula by the end of October, which will lead to public hearings and could pave the way for final approval by the end of the year.

French to the Rescue?
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¶9. (C) Zedan noted that one impact of the GCC electricity grid will be to make it feasible to construct a larger power plant that could serve the needs of several countries. Regional periodicals have noted that the grid will make nuclear power plants very cost competitive. Local energy experts believe that the GCC will need so much electricity in the coming years that the six countries will have no option but to turn to nuclear power. The GCC Secretariat is engaged in a feasability study of a GCC regional nuclear energy network, with initial recommendations to be presented to GCC members in December 2009. Meanwhile, Saudi Arabia appears to be developing its own national plans, and local industry sources report that French officials have visited Riyadh several times to discuss concluding a nuclear power cooperation agreement. They believe that France is also actively pursuing opportunities to sell a nuclear plant to the UAE, which could give it a significant advantage in selling to Saudi Arabia.
SMITH